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Sequence Listing was accepted.

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Reviewer: Durreshwar Anjum

Timestamp: [year=2008; month=10; day=22; hr=9; min=12; sec=10; ms=139;]

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Application No: 10583618 Version No: 2.0

Input Set:

Output Set:

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Finished: 2008-09-19 13:04:23.444
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Total Warnings: 2
Total Errors: 0
No. of SeqIDs Defined: 40
Actual SeqID Count: 40

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SEQUENCE LISTING

<110> LAY LINE GENOMICS S.P.A.

S.I.S.S.A.

Cattaneo, Antonino

Covaceuszach, Sonia

Lamba, Doriano

<120> Method for the humanization of antibodies and humanized antibodies thereby obtained

<130> PCT 84150

<140> 10583618

<141> 2008-09-19

<150> PCT/IT2004/000722

<151> 2004-12-23

<150> RM2003000601

<151> 2003-12-24

<160> 40

<170> PatentIn version 3.1

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<211> 369

<212> DNA

<213> Mus musculus

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acaggaagag gtctggagtg gagtggagga gtctgggctg gtggagccac agattacaat 180
tcagctctca aatcccgact gctgaccatc actagggaca cctccaagag ccaagtttc 240
ttaaaaatgc acatgctgca atctgaagac acagccactt actactgtgc cagagacggg 300
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<211> 122

<212> PRT

<213> Mus musculus

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20 25 30

Asn Val Asn Trp Val Arg Gln Ala Thr Gly Arg Gly Leu Glu Trp Met
35 40 45

Gly Gly Val Trp Ala Gly Gly Ala Thr Asp Tyr Asn Ser Ala Leu Lys
50 55 60

Ser Arg Leu Thr Ile Thr Arg Asp Thr Ser Lys Ser Gln Val Phe Leu
65 70 75 80

Lys Met His Ser Leu Gln Ser Glu Asp Thr Ala Thr Tyr Tyr Cys Ala
85 90 95

Arg Asp Gly Gly Tyr Ser Ser Ser Thr Leu Tyr Ala Met Asp Ala Trp
100 105 110

Gly Gln Gly Thr Thr Val Thr Val Ser Ala

115

120

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<211> 321

<212> DNA

<213> Rattus sp.

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gggaaatctc ctcagctcct gatctataat acagataacct tgcatactgg ggtcccatca 180

cgattcagtgc cagtggttgc tggcacaca tattctctca agataaacag cctgcaatct 240

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<211> 107

<212> PRT

<213> Rattus sp.

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20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ser Pro Gln Leu Leu Ile

35 40 45

Tyr Asn Thr Asp Thr Leu His Thr Gly Val Pro Ser Arg Phe Ser Gly

50 55 60

Ser Gly Ser Gly Thr Gln Tyr Ser Leu Lys Ile Asn Ser Leu Gln Ser

65 70 75 80

Glu Asp Val Ala Ser Tyr Phe Cys Gln His Tyr Phe His Tyr Pro Arg
85 90 95

Thr Phe Gly Gly Thr Lys Leu Glu Leu Lys
100 105

<210> 5

<211> 81

<212> DNA

<213> Homo sapiens

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gggtccctgcgcctcagctgc 81

<210> 6

<211> 81

<212> DNA

<213> Homo sapiens

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gcagctgaggccgcaggacc 81

<210> 7

<211> 81

<212> DNA

<213> Homo sapiens

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ggagccacagattacaattca 81

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<211> 84
<212> DNA
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agctgaattt gtaatctgtgg ctcc 84

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<213> Homo sapiens

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<211> 81
<212> DNA
<213> Homo sapiens

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<211> 78
<212> DNA
<213> Homo sapiens

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ggagaccgcg tcaccatc 78

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<211> 78

<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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ttccattatac ctcggt 75

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<211> 75

<212> DNA

<213> Homo sapiens

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<210> 17

<211> 122

<212> PRT

<213> Homo sapiens

<400> 17

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20 25 30

Asn Val Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Gly Gly Val Trp Ala Gly Gly Ala Thr Asp Tyr Asn Ser Ala Leu Lys
50 55 60

Ser Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Ala Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Asp Gly Gly Tyr Ser Ser Ser Thr Leu Tyr Ala Met Asp Ala Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 18

<211> 107

<212> PRT

<213> Homo sapiens

<400> 18

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
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Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu Asp Ile Tyr Asn Ala
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asn Thr Asp Thr Leu His Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Phe Cys Gln His Tyr Phe His Tyr Pro Arg
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 19

<211> 117

<212> PRT

<213> Homo sapiens

<400> 19

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asn Ile Lys Glu Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Gly Leu Ile Asp Pro Glu Gln Gly Asn Thr Ile Tyr Asp Pro Lys Phe
50 55 60

Gln Asp Arg Ala Thr Ile Ser Ala Asp Asn Ser Lys Asn Thr Ala Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Thr Ala Ala Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 20

<211> 107

<212> PRT

<213> Homo sapiens

<400> 20

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
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Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Arg Asp Ile Lys Ser Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
35 40 45

Tyr Tyr Ala Thr Ser Leu Ala Glu Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Gly Glu Ser Pro Trp
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 21

<211> 369

<212> DNA

<213> Mus musculus

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ccagagaaga ggctggagtg ggtcgccatac attagtaaag gtgggtggtag tacctactat 180

ccagacactg taaagggccg attcaccatc tccaggggaca atgcgaagaa caccctgtac 240

ctgcaaatga gcaggtctgaa gtctgaggac acggcccttgtt attactgtgc aagaggggct 300

atgtatggta acgattttttt ctatcctatg gactactggg gtcaaggaac ctcaagtcccc 360

gtctcctca 369

<210> 22

<211> 124

<212> PRT

<213> Mus musculus

<400> 22

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Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
20 25 30

Thr Met Ser Trp Ala Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val
35 40 45

Ala Tyr Ile Ser Lys Gly Gly Ser Thr Tyr Tyr Pro Asp Thr Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Met Phe Gly Asn Asp Phe Phe Phe Pro Met Asp Arg
100 105 110

Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala
115 120

<210> 23

<211> 318

<212> DNA

<213> Mus musculus

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ctaacctgca gtgccagctt gagtgtaagt tacatgcact ggtaccagca gaagtcaggc 120

acttctccca agctcttgat ttatactaca tccaacctgg cttctggagt cccttctcgc 180

ttcagtggca gtgggtctgg gacctttat tctctcacaa tcagtagtgtt ggaggctgaa 240
gatgctgccg attattactg ccatcagtgg agtagttatc catggacgtt cggtggaggc 300
accaagctgg aaatcaa 318

<210> 24

<211> 106

<212> PRT

<213> Mus musculus

<400> 24

Asp Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Leu Gly
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Glu Glu Val Thr Leu Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
20 25 30

His Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Leu Leu Ile Tyr
35 40 45

Thr Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Phe Tyr Ser Leu Thr Ile Ser Ser Val Glu Ala Glu
65 70 75 80

Asp Ala Ala Asp Tyr Tyr Cys His Gln Trp Ser Ser Tyr Pro Trp Thr
85 90 95

Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 25

<211> 81

<212> DNA

<213> Homo sapiens

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gggtccctgc gcctctcctg t 81

<210> 26

<211> 81

<212> DNA

<213> Homo sapiens

<400> 26
ccctggggcc tggcgagccc agctcatggt ataggtactg aaagtgaatc cagaggctgc 60
acaggagagg cgcaaggacc c 81

<210> 27

<211> 81

<212> DNA

<213> Homo sapiens

<400> 27
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ggtagtacct actatccaga c 81

<210> 28

<211> 81

<212> DNA

<213> Homo sapiens

<400> 28
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gtctggatag taggtactac c 81

<210> 29

<211> 81

<212> DNA

<213> Homo sapiens

<400> 29

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tgtgcaagag gggctatgtt t 81

<210> 30

<211> 81

<212> DNA

<213> Homo sapiens

<400> 30

ggagacggtg accagggttc cttagccccca gcggtcata ggaaagaaaa aatcgttacc 60

aaacatagcc cctcttgcac a 81

<210> 31

<211> 78

<212> DNA

<213> Homo sapiens

<400> 31

acaggcgtgc actccgacat ttttctcacc cagtctccat ccagcctgtc tgcgtctgtc 60

ggggaccggg tcaccatt 78

<210> 32

<211> 78

<212> DNA

<213> Homo sapiens

<400> 32

gcctggcttc tgctggtacc agtgcgtgtactcacacta gagctggcgc tgcaggtaat 60

ggtgacccgg tccccgac 78

<210> 33

<211> 78

<212> DNA

<213> Homo sapiens

<400> 33

tggtaccaggc agaagccagg caaggctccc aagctcctga tttatactac atccaacctg 60

gcttctggag tcccttct 78

<210> 34

<211> 75

<212> DNA

<213> Homo sapiens

<400> 34

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gactccagaa gccag 75

<210> 35

<211> 78

<212> DNA

<213> Homo sapiens

<400> 35

accctcacaa tcagtagtct gcagcctgaa gatttcgcca cctattactg ccatcagtgg 60

agttagttatc catggacg 78

<210> 36

<211> 75

<212> DNA

<213> Homo sapiens

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tggataacta ctcca

75

<210> 37

<211> 124

<212> PRT

<213> Homo sapiens

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Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
20 25 30

Thr Met Ser Trp Ala Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Tyr Ile Ser Lys Gly Gly Ser Thr Tyr Tyr Pro Asp Thr Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Met Phe Gly Asn Asp Phe Phe Phe Pro Met Asp Arg
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala
115 120

<210> 38

<211> 106

<212> PRT

<213> Homo sapiens

<400> 38

Asp Ile Val Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10